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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/567,483

05/21/2007

Tae-Won Son

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EXAMINER

SOROUGH, LAYLA

ART UNIT

PAPER NUMBER

1627

MAIL DATE

DELIVERY MODE

09/27/2011

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/567,483	Applicant(s) SON ET AL.	
	Examiner LAYLA SOROUGH	Art Unit 1627	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 20 April 2010.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ An election was made by the applicant in response to a restriction requirement set forth during the interview on ____; the restriction requirement and election have been incorporated into this action.
- 4) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 5) ☒ Claim(s) 1 and 8 is/are pending in the application.
- 5a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 6) ☐ Claim(s) ____ is/are allowed.
- 7) ☒ Claim(s) 1 and 8 is/are rejected.
- 8) ☐ Claim(s) ____ is/are objected to.
- 9) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 10) ☐ The specification is objected to by the Examiner.
- 11) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 12) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. ____. |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date ____. | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on April 20, 2010 has been entered. Claims 1 and 8 are pending.

See rejections below:

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1 and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kross (US 6,664,301) in view of Elder et al. (US 6107537 A).

Kross teaches cosmetic hydrogels containing gelling agents such as carrageenan, xanthan gum, locust bean gum gellan and/or agar. See col. 5, lines 37-40. The hydrogels contain 0.1-45% of glycols such as propylene glycol and/or glycerin, and other functional ingredients such as preservatives, alpha-hydroxy acids, collagen, peptides, herbal extracts (e.g. aloe vera), Salicylic acid (an isomer of methylparaben), vitamins, and water. See col. 4, lines 64-67; col. 6-7; Example 1. The hydrogels of Kross are useful for hydrating the skin. See col. 5, lines 5-14. The hydrogels of Kross

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are prepared by (a) mixing the gelling agents and dispersing the mixture in the mixture of polyols and preservative and then adding water to 100%; (b) heating the mixture to 82-85°C and mixing it; and (c) cooling the resulting gel. See Examples 1, 4-6. More specifically, Example 1 is a composition comprising dipropylene glycol (2,2'-dihydroxydipropyl ether) ("DPG") on a hydrogel based on a mixture of konjac flour, xanthan gum, dextrose, carrageenan and locust bean gums. Three formulations were prepared in which such combination represented 2.30% of the final hydrogel, which also contained 0.80% calcium lactate and Surcide DMDMH preservative at 0.75%.

Formulation No. 1 contained 8.0% of DPG and 5.5% of glycerine, for a total of 13.5% of polyhydric alcohols. Formula No. 2 contained 13.5% of just DPG alone, and Formula No. 3 contained 20.0% of DPG alone. Water made up the balance of the formulation. After thorough mixing, the liquid was heated in a microwave oven, with intermittent mixing, to a final temperature of 82.degree.-85.degree. C. The fluid mixture was then poured into two Pyrex dishes (155.times.10 mm), covered, and allowed to cool and set. Because the reference teaches the same branched gelation polymers, electrolyte gelation polymer, and polyhydric alcohols in the amounts claimed, the property in which the hydrogel is transformed into a fluid state at 30-50 °C, is rendered obvious over the prior art absent evidence to the contrary.

The reference fails to specifically teach the functional additives of the claims. While generally teaching the concentration of the ingredients and exemplifying the claimed concentrations of polyols and water (see col. 7, lines 10-33; Examples), the

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reference does not explicitly teach the claimed concentration of the skin communication enhancers, natural biomaterial, and functional additives.

However, Elder et al. teaches in water based skin care compositions preservatives such as methylparaben and salicylic acid are used.

The determination of optimal or workable concentrations of the ingredients by routine experimentation is obvious absent showing of criticality of the claimed concentrations. One having ordinary skill in the art would have been motivated to do this to obtain the desired additive properties of the composition as well as the desired cosmetic effect. Additionally, the motivation to interchange methylparaben and salicylic acid is because they are isomers of each other and both are useful as preservatives in a water based skin care composition. A skilled artisan would have had reasonable expectation of successfully producing a cosmetic composition with skin hydrating and preservation properties.

With respect to Claim 8, the reference does not teach the exact order in which the ingredients are added. However, this is an obvious modification of the prior art.

It would have been *prima facie* obvious to one having ordinary skill in the art at the time the invention was made to modify the method of Kross such that to add plant extracts and other cosmetic additives (e.g. alpha-hydroxy acids or vitamins) as the last step of the process in order to protect such additives from prolonged exposure to high temperatures and thus, preserve the thermo-labile active ingredients.

Therefore, the invention as a whole would have been *prima facie* obvious to one of ordinary skill in the art at the time the invention was made.

Response to Arguments

Applicant's arguments filed April 20, 2010 have been fully considered.

Applicant argues the compositions of the cited references do not suggest the claims 1 and 8 recited locust bean gum, carrageenan, at least one member selected from the group consisting of chitosan, collagen and aloe extract, with glycerine, at least one functional additive selected from the group consisting of methylparaben, propylparaben, imidazolidinylurea and Twin 80, and water. Nor does the cited art teach or suggest the recited specific amounts of each of the ingredients. The specified amounts achieve the claimed technical results.

The determination of optimal or workable concentrations of the ingredients by routine experimentation is obvious absent showing of criticality of the claimed concentrations. One having ordinary skill in the art would have been motivated to do this to obtain the desired additive properties of the composition as well as the desired cosmetic effect. Additionally, the motivation to interchange methylparaben and salicylic acid is because they are isomers of each other and both are useful as preservatives in a water based skin care composition. A skilled artisan would have had reasonable expectation of successfully producing a cosmetic composition with skin hydrating and preservation properties.

Applicant states the hydrogel of the present invention is applied to the skin, hydrogel is transformed from the gel state into a fluid state due to body temperature. The Examiner is of the position that the same components of the prior art within the concentration range are taught. Therefore, it would be expected when the composition

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is applied to the skin it would exhibit the same properties, absent evidence to the contrary.

Conclusion

No claims allowed.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Layla Soroush whose telephone number is (571)272-5008. The examiner can normally be reached on Monday through Friday from 8:30 a.m. to 5:00 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sreenivasan Padmanabhan, can be reached on (571) 272-0629. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/SREENI PADMANABHAN/

Supervisory Patent Examiner, Art Unit 1627